

**APPENDIX A**

Results of June Seep and Spring Survey

Table 1. Results of seep and spring inventory in the permit and adjacent areas.

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-1	0	(b)	(b)	(b)	From base of Starpoint SS over Masuk Sh. Member of Mancos Sh.	None
SP-2	0	(b)	(b)	(b)	From base of Starpoint SS over Masuk Sh. Member of Mancos Sh.	None
SP-3	4	8.12	730	17.0	From sandstone bedding plane in Starpoint SS	None
SP-4	6	7.86	660	10.0	From colluvium at head of landslide in Blackhawk Fm.	Deer and elk
SP-5	0	(b)	(b)	(b)	From colluvium over sandstone in Starpoint SS	None
SP-6	5	7.67	590	4.5	From sandstone bedding plane in Blackhawk Fm.	Deer and elk
SP-7	10	8.36	440	10.0	From snow patch at top of Castlegate SS	Deer and elk
SP-8	20	7.95	280	3.5	From snow patch at top of Castlegate SS	Deer and elk
SP-9	0	(b)	(b)	(b)	From sandstone/shale interface Castlegate SS/Blackhawk Fm.	None
SP-10	40	7.90	220	10.0	From snow patch at base of Castlegate SS	Deer and elk

Table 1. (continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-11	0	(b)	(b)	(b)	From colluvium over sandstone of Castlegate SS	None
SP-12	15	7.66	250	3.0	From base of sandstone (Price River Fm.) in channel bottom	Deer and elk
SP-13	3	8.57	100	7.0	From sandstone at head of slide in Price River Fm.	Deer and elk
SP-14	25	8.10	150	5.5	From fractured sandstone and soil in Price River Fm.	Deer and elk
SP-15	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-16	1	8.34	560	14.5	From sandstone at head of slide in Blackhawk Fm.	Deer
SP-17	2	7.71	460	10.0	From sandstone/shale interface in Blackhawk Fm.	Deer and elk
SP-18	10	7.42	500	7.0	From sandstone bedding plane in Star Point SS	Deer and elk
SP-19	5	7.60	620	6.5	From sandstone at head of slide in Blackhawk Fm.	None
SP-20	0	(b)	(b)	(b)	From sandstone bedding plane in Star Point SS	None

Table 1. (Continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-21	2	8.53	820	13.5	From sandstone bedding plane in Star Point SS	Deer
*SP-22	4	8.05	230	3.5	From fractured sandstone over shale in Blackhawk Fm.	None
SP-23	5	8.02	550	6.0	From sandstone/shale interface in Blackhawk Fm.	None
SP-24	2	7.35	790	6.0	From sandstone/shale interface in Blackhawk Fm.	Deer and elk
SP-25	<1	6.80	820	10.0	From sandstone bedding plane in Star Point SS	None
SP-26	0	(b)	(b)	(b)	From road cut, sandstone bedding plane in Star Point SS	None
SP-27	0	(b)	(b)	(b)	From colluvium over sandstone in Star Point SS	None
SP-28	<<1	(b)	(b)	(b)	From road cut, sandstone bedding plane in Star Point SS	None
SP-29	0	(b)	(b)	(b)	From road cut, sandstone bedding plane in Star Point SS	None
* SP-30	1	8.10	1060	16.5	From sandstone/shale interface in Blackhawk Fm.	None

Table 1. (Continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-31	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-32	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-33	<<1	(b)	(b)	(b)	From alluvium over sandstone in Blackhawk Fm.	None
SP-34	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-35	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
* SP-36	2	8.39	890	16.0	From sandstone/shale interface in Blackhawk Fm.	Deer and elk
SP-37	0	(b)	(b)	(b)	From sandstone bedding plane in Blackhawk Fm.	None
SP-38	<1	8.22	1180	9.0	From sandstone/shale interface in Blackhawk Fm.	Deer and elk
SP-39	0	(b)	(b)	(b)	From sandstone bedding plane in Blackhawk Fm.	None
SP-40	0	(b)	(b)	(b)	From sandstone bedding plane in Blackhawk Fm.	None

Table 1. (continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-41	<<1	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-42	<<1	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	Deer and elk
SP-43	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-44	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-45	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-46	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
* SP-47	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-48	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-49	0	(b)	(b)	(b)	From colluvium over sandstone in Blackhawk Fm.	None
SP-50	0	(b)	(b)	(b)	From sandstone bedding plane in road cut in Blackhawk Fm.	None
					From sandstone/shale interface in slump in Blackhawk Fm.	None

Table 1. (Continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-51	0	(b)	(b)	(b)	From sandstone/shale interface in slump in Blackhawk Fm.	None
SP-52	1	7.99	600	12.0	From colluvium over sandstone in Blackhawk Fm., w/ travertine	Deer
SP-53	8	7.31	490	5.5	From fractured sandstone with travertine in Blackhawk Fm.	Deer
SP-54	15	7.35	500	5.5	From fractured sandstone with travertine in Blackhawk Fm.	Deer
SP-55	10	7.36	480	5.5	From fractured sandstone with travertine in Blackhawk Fm.	Deer
SP-56	15	7.61	490	5.5	From fractured sandstone with travertine in Blackhawk Fm.	Deer
SP-57	6	7.35	480	5.5	From fractured sandstone with travertine in Blackhawk Fm.	Deer
* SP-58	10	7.40	500	5.0	From fractured sandstone in Blackhawk Fm.	Deer
SP-59	1	7.43	690	7.0	From colluvium over sandstone in Blackhawk Fm.	Deer
SP-60	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None

Table 1. (Continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-61	15	7.36	450	2.0	From fractured sandstone in Price River Fm.	Deer and elk
SP-62	0	(b)	(b)	(b)	From sandstone/shale interface in Price River Fm.	None
SP-63	0	(b)	(b)	(b)	From sandstone/shale interface in Price River Fm.	None
SP-64	10	7.33	440	3.0	From fractured sandstone in Price River Fm.	Deer
SP-65	15	7.43	430	5.0	From colluvium over sandstone in Price River Fm.	Deer and elk
SP-66	0	(b)	(b)	(b)	From sandstone/shale interface in Blackhawk Fm.	None
SP-67	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-68	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-69	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-70	15	7.17	550	3.5	From fractured sandstone in Price River Fm.	Deer

Table 1. (Continued).

Field Number	Flow (gpm)	pH (Units)	Specific Cond. (a)	Temp (°C)	Geology	Use
SP-71	0	(b)	(b)	(b)	From sandstone bedding plane in Castlegate SS	None
SP-72	<<1	(b)	(b)	(b)	From sandstone/shale interface in Price River Fm.	None
SP-73	0	(b)	(b)	(b)	From sandstone/shale interface in Blackhawk Fm.	None
SP-74	0	(b)	(b)	(b)	From sandstone/shale interface in Blackhawk Fm.	None
SP-75	0	(b)	(b)	(b)	From sandstone/shale interface in Blackhawk Fm.	None
SP-76	1	7.48	960	10.0	From sandstone/shale interface in Blackhawk Fm.	Deer
SP-77	0	(b)	(b)	(b)	From sandstone/shale interface in Blackhawk Fm.	None
SP-78	0	(b)	(b)	(b)	From sandstone bedding plane in Star Point SS	None
SP-79	0	(b)	(b)	(b)	From sandstone bedding plane in Star Point SS	None
SP-80	0	(b)	(b)	(b)	From sandstone bedding plane in Star Point SS	None

(a) In  $\mu\text{mhos}/\text{cm}$  at 25°C

(b) Insufficient water to sample